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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,049	08/15/2001	Ayahito Kojima	122.1464	9924

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EXAMINER

NGUYEN, CHANH DUY

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,049

Applicant(s)

KOJIMA ET AL.

Examiner

Chanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 7, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 7, 10-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on November 24, 2004 has been entered and considered by examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1,3, 7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Todoroki et al (U.S. Patent No. 6,597,333 B2).

As to claim 1, Kojima discloses a play apparatus including plural cells in which light emission is carried out selectively, wherein the display brightness is determined by the number of times of said light emission and the total number of times of light

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emission in each cell of the display frame of a screen are varied (see column 2, lines 37-40). Kojima teaches a sustain frequency judgment part (11) that judges the occurrence frequency of said total number of times of light emission by monitoring the change in said total number of times of light emission (see column 8, lines 27-36); and a control part (16) that controls said total number of times of light emission based on the judgment result of said sustain frequency judgment part (see column 8, lines 53-57).

Kojima does not mention a first threshold value and a second threshold value as recited in the claim. In same field of endeavor, Todoroki teaches a sustain frequency judgment part (39) judging whether a first state, in which said total number of times of light emission is over a fixed first threshold value (N_{ref}), occurs more than a fixed first frequency (setting number of pulses at brightness reduce value N_{ref}) (see Figure 3), and whether a second state, in which said total number of times of light emission is under a fixed second threshold value (N_1), occurs more than a fixed second frequency (setting number of pulses at initial value N_1) (see Figure 5). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the circuit for reducing and increasing the number of the sustaining pulses as taught by Todoroki to the control part of Kojima so as to prevent a cracking on the plasma display panel, regardless of what pattern of a stationary is displayed on the plasma display panel (see column 5, line 65 through column 6, line 3).

As to claim 3, Todoroki clearly teaches control part decreases said total number of times of light emission when said first state occurs more than said fixed first

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frequency (see step a3 of Figure 3), and increases said total number of times of light emission when said second state occurs more than said fixed second frequency (see step c3 of Figure 5).

As to claim 7, Todoroki clearly teaches display apparatus as set forth in claim 2, wherein said sustain frequency judgment part judges that the occurrence frequency exceeds said fixed first frequency when the cumulative time of said first state in a fixed cumulative period (predetermined time) is over a fixed first value (see Figure 3), and that the occurrence frequency exceeds said fixed second frequency when the cumulative time of said second state in a fixed cumulative period (predetermined time) is over a fixed second value (see Figure 5).

As to claim 10, Todoroki teaches a gradation scale judgment part that judges the occurrence frequency of a fixed gradation scale is further provided, and said control part controls said total number of times of light emission based on the judgment results of said sustain frequency judgment part and said gradation scale judgment part (see column 11, lines 26-50).

As to claim 11, Todoroki teaches said sustain frequency judgment part judges whether a first state in which said total number of times of light emission is over a fixed first threshold value occurs more than a fixed first frequency, whether a second state in which said total number of times of light emission is under a fixed second threshold value occurs more than a fixed second frequency, and whether a third state in which the gradation scale calculated from the display data is over a third threshold value occurs more than a third frequency, and said control part controls said total number

of times of light emission so as to decrease when said first state and said third state occur more than the first frequency and the third frequency, respectively (see Figures 3, 5 and column 11, lines 26-50).

Response to Arguments

5. Applicant's arguments filed May 11, 2004 have been fully considered but they are not persuasive.

On page 6 of the Remarks, Applicant argues that "the present invention does not judge whether the displayed image is a stationary picture or a motion picture. As described on page 8, lines 7-16, the present invention judges that a pattern of a small area with high brightness is displayed frequently by detecting that a first state, in which the total number of times of light emission is over a fixed first threshold value occurs more than a fixed first frequency". However, the claims do not recite the limitation "a pattern of a small area with high brightness is displayed frequently by detecting that a first state" nor the claims exclude the feature "judge whether the displayed image is a stationary picture or a motion picture" as taught by Todoroki. Todoroki teaches the step of detecting whether the picture is motion picture or stationary picture with a predetermined frequency (e.g., occurring repeated in "n" times which is greater than at least 1 for stationary picture and occurring repeated in a predetermined frequency in a predetermined period for motion picture); (see column 9, line 43 through column 10, line 15). Thus, the limitation first state and second state occurs more than a fixed first frequency and second frequency recited in claimed are clearly taught by Todoroki. Thirdly, column 10, lines 45-55 states that "the number of sustaining pulse is set at a

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brightness reducing value N_{ref} which is lower than an initial value $N1$ for indicating a motion picture". Thus $N1$ is greater than N_{ref} . In other words, the number of sustaining pulses being set at a brightness $N1$ being over a fixed threshold value N_{ref} . Figure 5 is analyzed similar to Figure 4 in which Figure 5 reads on the limitation "under a fixed second threshold value". Thus, both description of Figures 3 and 5 meet the limitation "over a fixed threshold value" and "under a fixed threshold value". It is noted that Tokoroki performs the same function of the claimed invention. That is reduce total light emission number in the state of still image with high contrast (see summary invention, lines 26-35). Tokoroki teaches the same way as the invention by reducing total number of sustaining pulses in a stationary picture (see column 6, lines 4-12 and lines 28-33) and increasing the number of sustaining pulses in a motion picture.


Inquiries


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (571) 272-7772. The examiner can normally be reached on Monday- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chanh Nguyen
Primary Examiner
Art Unit 2675


C. Nguyen
March 6, 2005